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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/926,145	01/11/2002	Hans-Bernhard Bolza-Schunemann	P1.1547PCT-US	2529

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EXAMINER

HINZE, LEO T

ART UNIT

PAPER NUMBER

2854

DATE MAILED: 08/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

09/926,145

Applicant(s)

BOLZA-SCHUNEMANN, HANS-
BERNHARD

Examiner

Leo T. Hinze

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 May 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 41-46 and 49-56 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 41-46 and 49-56 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

Claim Objections

1. Claims 43 and 54 objected to because of the following informalities:

Regarding claim 43, it is not clear what the reference structure is for defining relative rotation of said intermediate support rings. It appears that the applicant intends to claim the intermediate support rings are fixed against relative rotation with their respective cylinders.

Regarding claim 54, it is not clear what the reference is for defining or measuring an angle of said common plane. It appears that the applicant intends to claim that the common plane is at an angle other than 0 or 90 degrees with respect to a vertical web direction.

Appropriate correction and/or clarification is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 41-46, 50, 52, and 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Böck et al., US 6,145,437, in view of Firm, US 170,542.

Böck teaches:

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- a printing unit of a rotary printing press comprising: at least one form cylinder (1); a forme cylinder barrel; and an ink unit, said ink unit having at least one of an ink roller (4) and an ink transfer cylinder (3) , said at least one of said ink roller and said ink transfer cylinder having barrel ends (claim 41);
- wherein said inking unit includes both said ink roller (4) and said ink transfer cylinder (3) (claim 42);
- wherein said at least one form cylinder and said at least one of said ink roller and said ink transfer cylinder form a printing component (Fig. 1) (claim 52).

Böck does not teach:

- said forme cylinder barrel having first and second forme cylinder barrel end support surfaces; a forme cylinder intermediate support ring with a forme cylinder intermediate support ring outer support surface, said forme cylinder intermediate support ring being positioned between said spaced first and second forme cylinder barrel ends; at least one of said ink roller and said ink transfer cylinder having barrel end support surfaces, said at least one of said ink roller and said ink transfer cylinder further having an intermediate support ring with an outer surface between said barrel ends, said intermediate support ring outer surface of said forme cylinder intermediate support ring acting against said intermediate support ring outer surface of said intermediate support ring of said at least one of said ink roller and said ink transfer cylinder and said barrel end support surfaces of said forme cylinder barrel and of said at least one of said ink roller and said ink transfer cylinder barrel acting against each other (claim 41);

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- wherein said intermediate support rings are fixed against relative rotation (claim 43);
- wherein said intermediate support rings are rotatable (claim 44);
- wherein said intermediate support rings are each circular support rings (claim 45);
- wherein said support surfaces are level (claim 46);
- wherein said at least one form cylinder has a plurality of axially spaced printing plates (claim 50);
- wherein each said intermediate support ring is located approximately in the center of its respective barrel (claim 55).

Firm teaches:

- said forme cylinder barrel (A) having first and second forme cylinder barrel end support surfaces (Fig. 1); a forme cylinder intermediate support ring (a) with a forme cylinder intermediate support ring outer support surface, said forme cylinder intermediate support ring being positioned between said spaced first and second forme cylinder barrel ends; at least one other roller having barrel end support surfaces, said at least one other roller further (B) having intermediate supports (b), said intermediate support ring outer surface of said forme cylinder intermediate support ring acting against said intermediate support ring outer surface of said intermediate support ring of said at least one other roller and said barrel end support surfaces of said forme cylinder barrel and of said at least one other roller acting against each other (claim 41);
- wherein said intermediate support rings are fixed against relative rotation (Fig. 1) (claim 43);

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- wherein said intermediate support rings are rotatable (Fig. 1, rings rotate with cylinders A, B) (claim 44);
- wherein said intermediate support rings are each circular support rings (Fig. 1) (claim 45);
- wherein said support surfaces are level (Fig. 1) (claim 46);
- wherein said at least one form cylinder has a plurality of axially spaced printing plates (f) (claim 50);
- wherein each said intermediate support ring is located approximately in the center of its respective barrel (Fig. 1) (claim 55);
- wider presses allow more webs to be printed upon simultaneously (col. 2, lines 36-38);
- cylinders in a wide press may be supported intermediately of their length, to prevent springing and yielding that would interfere with the quality of the printing (col. 2, lines 14-20).

Regarding claims 41, 43-46, 50, and 55, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Böck wherein the cylinders are longer and the form and other rollers, including inking rollers, have intermediate support rings which contact intermediate support rings on other cylinders, and with the particular structure as taught by Firm, because Firm teaches longer cylinders allow more webs to be printed, and that intermediate support rings on rollers are advantageous when necessary in wide presses to prevent springing and yielding of rollers that may interfere with printing quality.

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Regarding claims 42 and 52, the combination of Böck and Firm teaches all that is claimed as discussed above.

4. Claim 49 is rejected under 35 U.S.C. 103(a) as being unpatentable over Böck in view of Firm as applied to claims 41-46, 50, 52, and 55 above, and further in view of Koppelkamm et al., US 6,408,747.

The combination of Böck and Firm teaches all that is claimed as discussed in the above rejection of claims 41-46, 50, 52, and 55, except a blanket cylinder having a plurality of axially spaced rubber blankets.

Koppelkamm teaches a printing unit with a plurality of rubber blankets (14.1, 14.2) axially spaced on a cylinder (4). Koppelkam teaches that multiple rubber blankets are advantageous in a press with multiple plates on the plate cylinder, for the economic printing of multifarious products (col. 1, lines 30-31).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify Böck to include multiple rubber blankets, because Koppelkamm teaches that wider presses with multiple forms and rubber blankets allow the economic printing of multifarious products.

5. Claims 51 and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Böck in view of Firm as applied to claims 41-46, 50, 52, and 55 above, and further in view of Erhard et al., US 5,558,021.

The combination of Böck and Firm teaches all that is claimed as discussed in the rejection of claims 41-46, 50, 52, and 55 above, including:

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- wherein each of said form cylinder and said least one of said ink roller and said ink transfer cylinder each have an axis of rotation (claim 51).

The combination of Bock and Firm does not teach:

- said axes of rotation being located on a common plane (claim 51);
- wherein said common plane extends horizontally (claim 53);

Erhard teaches:

- said axes of rotation being located on a common plane (claim 51);
- wherein said common plane extends horizontally (claim 53);
- that a printing device arranged as taught in Erhard is compact and efficient (col. 2, lines 2-3).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify Böck wherein said axes of rotation are located on a common horizontal plane, because Erhard teaches that such an arrangement produces a compact and efficient printing device.

6. Claim 54 is rejected under 35 U.S.C. 103(a) as being unpatentable over Böck in view of Firm and Erhard as applied to claims 51 and 53 above, and further in view of Zorn, US 5,865,120.

The combination of Böck, Firm, and Erhard teaches all that is claimed as discussed in the rejection of claims 51 and 53 above, except wherein said common plane extends at an angle.

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Zorn teaches a printing machine with an ink roller (11), ink transfer cylinder (9), and form cylinder (6), each with an axis of rotation on a common plane, said plane extending at an angle (Fig. 1).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify Böck wherein said common plane extends at an angle, because Zorn teaches that such an arrangement of cylinders and rollers is well known in the art, and one having ordinary skill in the art would recognize that such an arrangement is an acceptable alternative to the arrangement of Böck.

7. Claim 56 is rejected under 35 U.S.C. 103(a) as being unpatentable over Böck in view of Firm as applied to claims 41-46, 50, 52, and 55 above, and further in view of Rodi, US 5,809,883.

The combination of Böck and Firm teaches all that is claimed as discussed in the rejection of claims 41-46, 50, 52, and 55 above, except wherein each said support ring is a Schmitz ring.

Rodi teaches a printing machine with two contacting cylinders further having contacting barrel end supports, wherein the supports can be bearer or Schmitz rings (col. 1, line 17).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify Böck wherein each said support ring is a Schmitz ring, because Rodi teaches that bearing rings and Schmitz rings are well known alternatives in the art, and one having ordinary skill in the art would recognize that Schmitz rings could be substituted for bearing rings.

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Response to Arguments

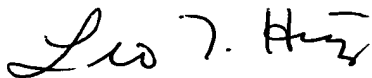
8. Applicant's arguments with respect to claims 41-46 and 49-56 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

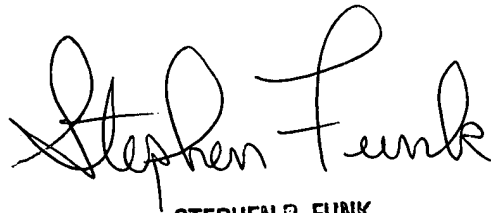
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leo T. Hinze whose telephone number is (703) 305-3339. The examiner can normally be reached on M-F 8:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Hirshfeld can be reached on (703) 305-6619. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-0952.



Leo T. Hinze
Patent Examiner
AU 2854
August 1, 2003



STEPHEN R. FUNK
PRIMARY EXAMINER